

REMARKS

Claims 12-22 are pending and under consideration. Reconsideration is requested.

Item 3: Rejection of Claim 22 under 35 U.S.C. §101

In item 3 of the Office Action, the Examiner rejects claim 22 under 35 U.S.C. §101 as being directed as non subject statutory matter, and asserts:

Functional descriptive material such as computer programs and/or data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized." See MPEP 2106.01(I). In the instant case, claim(s) do not meet the test above and therefore are rejected as non-statutory subject matter.

(See, Action at page 2).

The rejection is traversed. Claim 22 recites a "computer readable medium storing instructions that when executed control at least one processor in a radio station to perform a method comprising: storing a path between the radio station and the radio access point, where the path is formed of at least one further radio station and enabling data to be transferred from the radio station to the radio access point and from the radio access point to the radio station via the path; sending test data for the radio access point to determine whether a failure of the path exists; receiving and processing failure information about presence of a failure of the stored path; and initiating a method to determine a new path between the radio station and the radio access point following reception of the failure information." Emphasis added.

That is, Applicants submit that claim 22 explicitly recites a usage of a stored path on a computer readable medium and further claim 22 recites sending of the test data and the receiving and processing of the failure information and the initiation of finding a new path. Applicants submit that claim 22 complies with 35 U.S.C. 101.

Conclusion

Thus, the rejection should be withdrawn.

Item 5 Rejection of Claims 12-22 under 35 U.S.C. §102(a)

In item 5 of the Office Action, the Examiner rejects claims 12-22 under 35 U.S.C. §102(a) as being anticipated by Cromer et al. (US20030156558) ("Cromer"). (See, Action at pages 3-6). The rejection is traversed.

As set forth in Manual of Patent Examining Procedure §2131, to establish anticipation under §102, the reference relied on in support of the rejection must teach each and every element of the claim and the identical invention must be shown in as complete detail as in the claim.

Applicants submit that all of the features recited by each of independent claims 12 and 20-22 (and dependent claims 13-19) are not taught by Cromer.

Independent claim 12 recites a method for "operating a radio communication system with a radio access point and a plurality of radio stations, including a terminal radio station located outside of direct radio transmission range of the radio access point which requires path information about a path formed of at least one further radio station usable for message transfer between the radio access point and the terminal radio station, said method comprising: learning, at the terminal radio station, about a requirement for the path information at the radio access point; and initiating at the terminal radio station a method for determining the path between the terminal radio station and the radio access point."

That is, claim 12 recites that a mobile unit or radio station learns about a requirement for a new path issued from the radio access point. Independent claim 20 has a similar recitation directed to a radio station.

Cromer does not teach such method nor radio station.

Claim 12 recites a "radio access point" that is *arguendo* referred to in Cromer as "access point" or AP. By contrast with independent claim 12, Cromer merely teaches how a path over several mobile units is determined (See, for example, paragraphs 22 to 39) and the criterion i.e., the shortest delay or the fewest intermediate device in the path (See, for example, paragraph 62). In paragraph 63, Cromer merely teaches the mobile unit in the path is described, first it is in a non-active state and the user can determine whether the mobile unit is allowed to be a member within the any path. In paragraph 77, Cromer merely teaches that when a problem is detected from the data received the next path stored is switched to and when there is no next path stored the system starts to search for a new path.

As recited by dependent claim 13, when a base station covers both the access point AP and the terminal radio station and the access point detects that the communication to the terminal radio station is lost it sends a message (i.e. request for path information) to the base station. The base station informs the radio terminal station the renewed request for path information.

By contrast with claim 13, Cramer merely teaches about how the path information is found (See, paragraphs 21, 57 and 58); how the access response is passed from the access point AP is passed on to the remote MU (i.e., terminal radio station) in paragraph 29; and the two mode to find the next unit in the path, i.e. the mobile unit sends probe frames first to find the access point AP and if this attempt failed it tries to contact other mobile units (paragraph 79).

Claim 14 recites a method that when the existing connection fails the access point receives failure information, the remote mobile unit or terminal radio station also learns about the failure, and the terminal radio station initiates a method to find a new path.

By contrast with claim 14, Cramer merely teaches how data is sent from the remote mobile unit via the intermediate mobile units to the access point and then along the communication network. At the remote mobile unit the data to be sent gets appended the addresses of the intermediate mobile units (paragraphs 32 to 39).

In paragraph 58, Cramer merely teaches how the remote mobile unit finds the path to the access point, and that remote access point sends remote access frames; the receiving intermediate mobile unit appends its own MAC address to the existing MAC addresses of the access request. This process is continued until an intermediate mobile unit contacts an access point.

Claim 15 recites data being sent from the radio access point to the terminating radio station and the response received at the radio access point. That is, that a return message sent from any of the intermediate mobile stations to the access point.

Claim 16 recites how the radio access point determines the existence of a failure in the known path to the terminating radio unit or remote mobile unit.

By contrast, with claims 15 -16, Cromer merely teaches in paragraph 77 "when a problem is detected by examining a data frame which has been received." In paragraph 76, Cromer merely teaches a bidirectional communication that is not a response to a failure it is just about a problem, which can be a data packet not being decoded correctly.

Claim 17 recites a method including the test data verifying if a path failure exists still is sent periodically or at regular intervals.

By contrast with claim 17, Cramer merely teaches an active scanning mode here the mobile unit sends probe frames to contact an access point, first and second, it searches for a path via intermediate mobile units. Mobile units in the non active mode are listening to beacon

frames from access points to set up a connection directly (paragraphs 78 to 80), and in paragraph 90 teaches about the precise timing and data structure at the remote mobile unit.

Claim 18 recites a method including that the results of the test data sent from the access point will lead to the remote mobile station or terminal radio station to learn that the original path has a failure or not.

Claim 19 recites a method including that the determination whether a path failure exists can be based on a notification sent prior to the possible path failure.

By contrast, Cramer merely teaches "when a problem is detected by examining a data frame which has been received".

But, Cramer does not teach how the problem is detected. For example, a problem needs not to be a path failure. It can be a bad data block being received.

Independent claim 21 recites a radio station (mobile unit) including data storage, sending test data, receiving and processing failure information and initiating the determination of a new path.

By contrast with claim 21, Cramer merely teaches a mobile unit's address is a MAC address (paragraph 58) and the upon a path failure the next path stored in the first data structure or a new path search is started (paragraph 77). The path for the data to be sent is stored in the data structure (paragraph 76).

Independent claim 22 recites a usage of the stored path on the computer readable medium, further claim 22 recites a sending of the test data and the receiving and processing of the failure information and the initiation of finding a new path.

By contrast, Cramer merely teaches about a mode to switch the path upon a problem (paragraph 77), that the path information is stored in the data structure (paragraph 76), and that the mobile unit's address can be a MAC address (paragraph 58), and the mobile unit's hardware circuitry (paragraph 64), and modes to provide the software for the mobile unit (paragraph 71).

Conclusion

Since all of the features of each of independent claims 12 and 20-22 (and dependent claims 13-19) are not taught by the art of record, the rejection should be withdrawn, and claims 12-22 allowed.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Paul W. Bobowiec
Paul W. Bobowiec
Registration No. 47,431

1201 New York Avenue, N.W., 7th Floor
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501